Other articles

HOW DID PAUL KRUGMAN GET IT SO WRONG?[1]

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This article is a response to Paul Krugman's New York Times Magazine *article, 'How Did Economists Get It So Wrong?' Krugman's attack on modern economics – and many* adhominem *attacks on modern economists – display a deep and highly politicised ignorance of what economics and finance is really all about, and a striking emptiness of useful ideas.*

Keywords: Paul Krugman, stimulus, Keynes, efficient markets.

Many friends and colleagues have asked me what I think of Paul Krugman's *New York Times Magazine* article, 'How Did Economists Get It So Wrong?'[2]

Most of all, it is sad. Imagine this were not an economics article. Imagine this were a respected scientist turned popular writer, who says, most basically, that everything everyone has done in his field since the mid-1960s is a complete waste of time. Everything that fills its academic journals, is taught in its PhD programmes, presented at its conferences, summarised in its graduate textbooks, and rewarded with the accolades a profession can bestow (including multiple Nobel Prizes) is totally wrong. Instead, he calls for a return to the eternal verities of a rather convoluted book written in the 1930s, as taught to our author in his undergraduate introductory courses. If a scientist, he might be an AIDS-HIV disbeliever, a creationist or a stalwart that maybe continents do not move after all.

It gets worse. Krugman hints at dark conspiracies, claiming 'dissenters are marginalised'. The list of enemies is ever-growing and now includes 'new Keynesians' such as Olivier Blanchard and Greg Mankiw. Rather than source professional writing, he uses out-of-context second-hand quotes from media interviews. He even implies that economists have adopted ideas for pay, selling out for 'sabbaticals at the Hoover institution' and fat 'Wall Street paychecks'.

This approach to economic discourse is a disservice to *New York Times* readers. They depend on Krugman to read real academic literature and digest it, and they get this attack instead. Any astute reader knows that personal attacks and innuendo mean the author has run out of ideas.

Indeed, this is the biggest and saddest news of this piece: Paul Krugman has no interesting ideas whatsoever about what caused the financial and economic problems that culminated in the crash of 2008, what policies might have prevented it, or what might help us in the future.

But maybe he is right. Occasionally sciences, especially social sciences, do take a wrong turn for a decade or two. I think Keynesian economics was such a wrong turn. So let us take a quick look at the ideas.

Krugman's attack has two goals. First, he thinks financial markets are 'inefficient', fundamentally due to 'irrational' investors, and thus prey to excessive volatility which needs government control. Second, he likes the huge 'fiscal stimulus' provided by multi-trillion dollar deficits.

Market efficiency

It is fun to say that we did not see the crisis coming, but the central empirical prediction of the efficient markets hypothesis is precisely that nobody can tell where markets are going – neither benevolent government bureaucrats, nor crafty hedge-fund managers, nor ivory-tower academics. This is probably the best-tested proposition in all the social sciences. Krugman knows this, so all he can do is rehash his dislike for a theory whose central prediction is that nobody can be a reliable soothsayer. It makes no sense whatsoever to try to discredit efficient market theory in finance because its followers didn't see the crash coming.

Krugman writes as if the volatility of stock prices alone disproves market efficiency, and believers in efficient marketers have just ignored it all these years. This is a canard that Krugman should know better than to pass on, no matter how rhetorically convenient. There is nothing about 'efficiency' that promises 'stability'. 'Stable' price growth would in fact be a major *violation* of efficiency as it would imply easy profits. Data from the Great Depression have been included in practically all the tests of efficient markets. Proponents of the theory have not forgotten its lessons. In fact, a great puzzle in efficient markets theory is that the large equity risk premium suggests that, if anything, stock markets do not seem risky *enough*.

It is true and very well documented that asset prices move more than is justified by reasonable expectations of future cashflows, discounted at a constant rate. This might be because people are prey to bursts of irrational optimism and pessimism. It might also be because people's willingness to take on risk varies over time, and is lower in bad economic times. As Eugene Fama pointed out in 1970, these are observationally equivalent explanations. Unless you are willing to elaborate your theory to the point that it can quantitatively describe *how much* and *when* risk premiums, or waves of 'optimism' and 'pessimism', can vary, you know nothing. No theory is particularly good at that right now.

Crying 'bubble' is empty unless you have an operational procedure for identifying bubbles, distinguishing them from rationally low-risk premiums and crying wolf too many years in a row. Krugman rightly praises Robert Shiller for his warnings over many years that house prices might fall. But advice that we should listen to Shiller, because he got the last call right, is no more useful than previous advice from many quarters to listen to Alan Greenspan because he got several forecasts right. Following the last mystic oracle until he gets a judgment wrong, then casting him to the wolves, is not a good long-term strategy for identifying bubbles. Krugman likes Shiller because he advocates behavioural finance ideas, but that is no help either. People who say they follow behavioural finance have just as wide a divergence of opinion as those who do not. Are markets irrationally exuberant or irrationally depressed *today*? It's hard to tell.

This difficulty is no surprise. It is the central prediction of free-market economics, as crystallised by F. A. Hayek, that no academic, bureaucrat or regulator will ever be able to fully explain market price movements. Nobody knows what 'fundamental' value is. If anyone could tell what the price of tomatoes should be, let alone the price of Microsoft stock, then communism and central planning would have worked. More deeply, the economist's job is not to 'explain' market fluctuations after the fact or to give a pleasant story on the evening news about why markets went up or down.

The case for free markets is not justified by the belief that markets are 'perfect'

But this argument takes us away from the main point. The case for free markets never was that markets are perfect. The case for free markets is that government control of markets, especially asset markets, has always been much worse.

In effect, Krugman is arguing that the government should massively intervene in financial markets and take charge of the allocation of capital. He cannot say this explicitly, but he does say, 'Keynes considered it a very bad idea to let such markets . . . dictate important business decisions', and 'finance economists believed that we should put the capital development of the nation in the hands of what Keynes had called a "casino" '. Well, if markets cannot be trusted to allocate capital, it's a fair to conclude Krugman thinks only the government can.

To reach this conclusion, you need evidence, experience or some realistic hope that the alternative will be better. Remember, the US regulator, the SEC, could not even find Bernie Madoff when he was handed to them on a silver platter. Fannie Mae, Freddie Mac and Congress all did a dreadful job of managing the mortgage market. Is this system going to regulate Citigroup, guide financial markets to the right price, replace the stock market, and tell our society which new products are worth investment? Government regulators failed just as abysmally as private investors and economists to see the storm coming.

In fact, if you take it at all seriously, the behavioural view gives us a new and stronger argument *against* regulation and control. Regulators are just as human and irrational as market participants. If bankers are, in Krugman's words, 'idiots', then so must be the typical Treasury secretary, Fed chairman and regulatory staff. Most of them are ex-bankers! Furthermore, regulators act alone or in committees, without the discipline of competition, where behavioural biases are much better documented than in market settings. They are still easily captured by industries, and face politically distorted incentives.

Careful behaviouralists know this, and do not quickly run from 'the market got it wrong' to 'the government can put it all right'. Even my most behavioural colleagues Richard Thaler and Cass Sunstein in their book *Nudge* go only so far as a light libertarian paternalism, suggesting good default options on US personal pension accounts. (And even here they're not very clear on how the Federal Nudging Agency is going to steer clear of industry capture.) They do not even think of jumping from 'irrational' markets, which they believe in deeply, to government control of stock and house prices and allocation of capital.

Stimulus

Krugman is a strong supporter of fiscal stimulus. In this quest, he accuses us and the rest of the economics profession of 'mistaking beauty for truth'. He is not clear on what the 'beauty' is that we all fell in love with, and why one should shun it, for good reason. The first siren of beauty is simple logical consistency. Krugman's Keynesian economics requires that people make logically inconsistent plans to consume more, invest more and pay more taxes with the same income. The second siren is plausible assumptions about how people behave. Keynesian economics requires that the government is able to systematically fool people again and again. It presumes that people don't think about the future in making decisions today. Logical consistency and plausible foundations are indeed 'beautiful' but to me they are also basic preconditions for 'truth'.

In economics, stimulus spending ran aground on Robert Barro's Ricardian equivalence theorem. This theorem says that debt-financed spending cannot have any more effect than spending financed by raising taxes. People, seeing the higher future taxes that must pay off the debt, will simply save more. They will buy the new government debt and leave all spending decisions unaltered. Is this theorem true? It is a logical connection from a set of 'ifs' to a set of 'therefores'. Not even Krugman can object to the connection.

Therefore, we have to examine the 'ifs'. And those 'ifs' are, as usual, obviously not true. For example, the theorem assumes lump-sum taxes, not proportional income taxes. Alas, when you take this consideration into account, we are all made poorer by deficit spending, so the multiplier is most likely negative. The theorem (like most Keynesian economics) ignores the composition of output; but surely spending money on roads rather than cars can't greatly affect the overall level of output.

Economists have spent a generation tossing and turning the Ricardian equivalence theorem, assessing the likely effects of fiscal stimulus in its light, generalising the 'ifs' and figuring out the likely 'therefores'. This is exactly the right way to do things. The impact of Ricardian equivalence is not that this simple abstract benchmark is literally true. The impact is that in its wake, if you want to understand the effects of government spending, you have to specify why and how it is false.

Doing so does not lead you anywhere near old-fashioned Keynesian economics. It leads you to consider distorting taxes, how much people care about their children, how many people would like to borrow more to finance today's consumption and so on.

For example, most Keynesians think the Ricardian equivalence theorem fails because people don't rationally anticipate the future taxes that must pay off today's debt. OK, but what's good for the goose is good for the gander: if sometimes people pay too little attention to future taxes, at others they pay too much, so stimulus has a negative effect. The latter seems at least plausible now! It is the logically consistent conclusion from Krugman's views. He thinks deficit concerns are just Tea Party hysteria. OK, but if so, the voters are overestimating future taxes, not ignoring them. Furthermore, if 'stimulus' is rooted in people ignoring future taxes, then it makes no sense whatsoever to advocate 'stimulus' today but loudly announce the future taxes in 'deficit reduction'!

Last, when you find 'market failures' that might justify a multiplier, optimal-policy analysis suggests fixing the market failures, not their exploitation by fiscal multipliers.

This is how real, thoughtful, logically consistent analysis of fiscal stimulus proceeds. *Nobody ever* 'asserted that an increase in government spending cannot, under any circumstances, increase employment', any more than (I presume) Krugman would assert that more government spending always helps (Greece? Zimbabwe?). This statement is unsupportable by any serious review of professional writings, and Krugman knows it. But thinking through this sort of thing and explaining it is much harder than just tarring your enemies with out-of-context quotes, ethical innuendo or silly cartoons.

The 'crash'

Krugman's *New York Times* article is supposedly about how the crash and recession changed our thinking, and what economics has to say about it. The most amazing news in the whole article is that Paul Krugman has absolutely no idea about what caused the crash, what policies might have prevented it and what policies we should adopt going forward. He seems completely unaware of the large body of work by economists who actually do know something about the banking and financial system, and have been thinking about it productively for a generation.

There was a financial crisis, a classic run on the shadow banking system, and near collapse of the large commercial banks. The centrepiece of our crash was not the relatively free stock or real estate markets, it was the highly regulated banks. A generation of economists has thought really hard about these kinds of events: Diamond, Rajan, Gorton, Kashyap, Stein, Duffie and so on. They have thought about why there is so much short-term debt, why people run on banks, how deposit insurance and credit guarantees can help to stop runs, and how they give incentives for excessive risk-taking, why brokerage and derivatives contracts are prone to runs, what's wrong with bankruptcy law and how to fix it.

If we want to think about events and policies, this seems like more than a minor detail. The hard and central policy debate over the last year was how to manage this *financial* crisis. Now it is how to set up the incentives of banks and other financial institutions so that another financial crisis or sovereign-debt crisis does not happen. There is a lot of good and subtle economics here that *New York Times* readers might like to know about. But, sadly, Krugman says nothing about these things.

Krugman does not even have anything to say about the Federal Reserve Board (Fed). Ben Bernanke did a lot more in 2007–08 than set central bank interest rates to zero and then go off on vacation and wait for fiscal policy to do its magic. Leaving aside the string of bailouts, the Fed started term lending to securities dealers. Then, rather than buy US government bonds in exchange for reserves, it essentially sold government bonds in exchange for private debt. Though the funds rate was near zero, the Fed noticed huge commercial paper and securitised-debt spreads, and intervened in those markets. There is no such thing as 'the' interest rate anymore: the Fed is attempting to manage all interest rates.

Monetary policy now has little to do with 'money' versus 'bonds' with all the latter lumped together. Monetary policy has become wide-ranging *financial* policy. Does any of this work? What are the dangers? Can the Fed stay independent in this new role? These are the questions of our time. Paul Krugman has nothing to say about them.

To Krugman, the crash was caused by 'irrationality'. To Krugman, there is one magic cure-all for all economic problems: fiscal stimulus. It's really a remarkably empty view of the world.

Krugman claims a cabal of obvious crackpots bedazzled all of macroeconomics with the beauty of their mathematics, to the point of inducing policy paralysis. Alas, that won't stick. The sad fact is that few in Washington pay the slightest attention to modern macroeconomic research, in particular to anything with a serious intertemporal dimension. Krugman's simple Keynesianism has dominated policy analysis for decades and continues to do so. Policy-makers just add up consumer, investment and government 'demand' to forecast output and use simple Phillips curves to think about inflation. If a failure of ideas caused bad policy, it's Krugman's simple-minded 1960s Keynesianism that failed.

The future of economics

How should economics change? Krugman argues for three incompatible changes.

First, he argues for a future of economics that 'recognises flaws and frictions', and incorporates alternative assumptions about behaviour, especially towards risk-taking. This is what macroeconomists have been doing for a generation. Macroeconomists have not spent 30 years admiring the eternal verities of Kydland and Prescott's 1982 paper. Pretty much all we have been doing for 30 years is introducing flaws, frictions and new behaviours (especially new models of attitudes to risk) and comparing the resulting models, quantitatively, to data. The long literature on financial crises and banking which Krugman does not mention has also been doing exactly the same. My own research includes work on 'habits', a mechanism by which people become more risk averse as values fall.

Second, Krugman argues that 'a more or less Keynesian view is the only plausible game in town', and 'Keynesian economics remains the best framework we have for making sense of recessions and depressions'. One thing is pretty clear by now, that when economics incorporates flaws and frictions, the result will not be to rehabilitate an 80-year-old book. As Krugman bemoans, the 'new Keynesians' who did just what he asks by putting Keynes-inspired price-stickiness into logically coherent models, ended up with something that looked a lot more like monetarism. A science that moves forward almost never ends up back where it started: Einstein revised Newton, but did not send us back to Aristotle.

Third, and most surprising, is Krugman's Luddite attack on mathematics: 'economists as a group, mistook beauty, clad in impressive-looking mathematics, for truth'. Models are 'gussied up with fancy equations'. I am old enough to remember when Krugman was young, working out the interactions of game theory and increasing returns in international trade for which he won the Nobel Prize. The old guard tut-tutted 'nice recreational mathematics, but not real-world at all'. He once wrote eloquently about how only mathematics keeps your ideas straight in economics. How quickly time passes.

Again, what is the alternative? Does Krugman really think we can make progress in economic and financial research (understanding frictions, imperfect markets, complex human behaviour and institutional rigidities) by reverting to a literary style of exposition and abandoning the attempt to compare theories quantitatively against data? Against the worldwide tide of quantification in all fields of human endeavour is there any real hope that this will work in economics?

The problem is that we do not have *enough* mathematics. Mathematics in economics serves to keep the logic straight, to make sure that the 'then' really does follow the 'if', which it so frequently does not if you just write prose. The challenge is that it is hard to write down explicit artificial economies with these novel ingredients and actually solve them in order to see what makes them tick. Frictions are just hard with the mathematical tools we have now.

The insults

The level of personal attack in the *New York Times* article, and the fudging of the facts to achieve it, is simply amazing. As one little example, take my quotation about carpenters in Nevada. Krugman writes: 'And Cochrane declares that high unemployment is actually good: "We should have a recession. People who spend their lives pounding nails in Nevada need something else to do." Personally, I think this is crazy. Why should it take mass unemployment across the whole nation to get carpenters to move out of Nevada?'

I did not write this. It is an attribution, taken out of context, from a bloomberg.com article, written by a reporter with whom I spent about 10 hours patiently trying to explain some basics, and who also turned out only to be on a hunt for embarrassing quotes. Nevertheless, I was trying to explain how sectoral shifts contribute to unemployment. I never asserted that 'it takes mass unemployment across the whole nation to get carpenters to move out of Nevada'. You cannot even dredge up an out-of-context quote for that monstrously made-up opinion.

What is the point in conducting debate this way? I do not think that Krugman disagrees that sectoral shifts result in some unemployment, so the quote actually makes sense as economics. The only point is to make me, personally, seem heartless – a pure, personal, calumnious attack, which has nothing to do with economics.

It goes on. Krugman asserts that I and others 'believe' 'that an increase in government spending cannot, under any circumstances, increase employment' and that we 'argued that price fluctuations and shocks to demand actually had nothing to do with the business cycle'. These are just gross distortions, unsupported by any documentation or the lightest fact-checking, let alone by examination of any professional writing. And Krugman knows better. All economic models are simplified to exhibit one point; we all understand the real world is more complicated. Krugman's job as a professional economist with a newspaper column is supposed to be to explain that to lay readers. These quotes about academic opponents would be rather like somebody looking up Krugman's early work (which assumed away transport costs) and claiming in the *Wall Street Journal*, 'Paul Krugman believes ocean shipping is free, how stupid'.

The idea that any of us do what we do because we are paid off by Wall Street banks or seek cushy sabbaticals at Hoover is ridiculous. Indeed, believing in efficient markets *dis*qualifies you for employment in hedge funds and many other financial institutions. Nobody wants to hire somebody who thinks you cannot make any money trading!

Krugman is supposed to read, explain and criticise things economists write. This should be real professional writing: not interviews, opeds and blog posts. At a minimum, Krugman's style leads to the unavoidable conclusion that he is not reading real economics anymore.

How did Krugman get it so wrong?

So what is Krugman up to? The only explanation that makes sense to me is that Krugman isn't trying to be an economist: he is trying to be a partisan, political opinion writer. This is not an insult. I read George Will, Charles Krauthnammer and Frank Rich with equal pleasure even when I disagree with them. Krugman wants to be the Rush Limbaugh of the Left.

To Krugman, economics is no longer a quest for understanding, delightful in its capacity to overturn one's preconceptions. Economics is just a set of debating points to argue for policies that one has adopted for partisan political purposes. 'Stimulus' is just marketing to sell Congressmen and voters a package of government spending priorities that are wants for political reasons. It is not a proposition to be explained, understood, taken seriously to its logical limits, or reflective of market failures that should be addressed directly.

Why argue for a nonsensical future for economics? Well, again, if you do not regard economics as a science; a discipline that ought to result in quantitative matches to data; a discipline that requires crystal-clear logical connections between the 'if' and the 'then'; and if the point of economics is merely to provide marketing and propaganda for politically-motivated policy, then his writing does make sense. It makes sense to appeal to some future economics – not yet worked out even verbally, let alone tested in data – to disdain quantification and comparison to data, and to appeal to the authority of ancient books while advocating that we spend a trillion dollars.

This is the only reason I can come up with to understand why Krugman wants to write personal attacks on those who disagree with him. I *like* it when people disagree with me, and take time to read my work and criticise it. At worst I learn how to position it better. At best, I discover I was wrong and learn something. I send a polite thank-you note.

Krugman wants people to swallow his arguments whole from his authority, without demanding logic, or evidence. Those who disagree with him, alas, are pretty smart and have pretty good arguments if you bother to read them. So, he tries to discredit them with personal attacks.

This is the political sphere, not the intellectual one: do not argue with opponents, swift-boat them. Sadly, this approach has nothing to do with economics, or discovering the truth about how the world works or could be made a better place.

1. This article is an edited version of an earlier article, available at http://faculty.chicagobooth.edu/john.cochrane/research/Papers/krugman_response.htm.
2. Available at http://www.nytimes.com/2009/09/06/magazine/06Economic-t.html?_r=1 (published 2 September 2009).

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